

WHAT IS CLAIMED IS:

1. A non-volatile semiconductor device including memory blocks
and a controller for performing the control of operation of the memory blocks
upon receipt of an address and a command, the non-volatile semiconductor
5 storage device comprising:

a redundant memory block provided for redundancy in the case
where deficient erasure occurs inside of the memory block;

a register for storing therein an input address;

a redundancy judging circuit for outputting an address stored in the
10 register and an address stored inside of the redundant memory block as a
redundant address with respect to the address stored in the register in the
case where a deficient erasure status representing deficient erasure is
output from the memory block when an erasure command is input into the
memory block; and

15 redundant address storage means for storing therein the address
and the redundant address;

wherein the address is replaced with the redundant address stored
in the redundant address storage means when the address input into the
controller is the address stored in the redundant address storage means,
20 and memory operation is performed.

2. The non-volatile semiconductor device as claimed in claim 1,
wherein the redundant address storage means consists of the memory block.

3. The non-volatile semiconductor device as claimed in claim 1,
wherein the redundant address storage means consists of a fuse type
25 memory.

4. The non-volatile semiconductor device as claimed in claim 1, wherein output times of the deficient erasure status are counted, and then, the redundancy judging circuit outputs the address and the redundant address at the time when predetermined times are counted.

5 5. The non-volatile semiconductor device as claimed in claim 1, wherein the address is replaced with the redundant address when a replacement command is received from the outside.

6. The non-volatile semiconductor device as claimed in claim 1, wherein in the case where the redundant memory block is short of a storage
10 area in a certain chip if said non-volatile semiconductor storage device is a multi-chip package, a redundant memory block in another chip is diverted.

7. The non-volatile semiconductor device as claimed in claim 1, wherein in the case where the redundant memory block is short of a storage area in a normal chip if said non-volatile semiconductor storage device is a
15 multi-chip package and a certain chip is unusable, a normal memory block inside of the unusable chip is diverted.